



Millennium Science & Engineering, Inc.

1605 N. 13th Street
Boise, Idaho 83702
Phone: (208) 345-8292
Fax: (208) 344-8007

RECEIVED

JUL 25 2008

Department of Environmental Quality
State Air Program

July 25, 2008

Mr. William Rogers
Air Quality and Permits Manager
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

RE: Permit to Construct Application, Salmon Asphalt and Paving, Salmon, Idaho

Dear Mr. Rogers:

Please find enclosed one copy of the Permit to Construct Application for the Salmon Asphalt and Paving facility in Salmon, Idaho. Electronic copies of this application will follow by e-mail. A check to pay the Permit to Construction application fees is also enclosed.

Thank you for your assistance with this project. If you have any questions please call me at (208) 345-8292.

Regards,

Troy D. Riecke, P.E.
Environmental Engineer

Cc: Mr. Chuck Mualem – Salmon Asphalt and Paving



IDAHO DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton
Boise, Idaho 83706-1253

RECEIVED

JUL 25 2008

RECEIPT

Department of Environmental Quality
State Air Program

07/25/08
DATE

RECEIVED FROM

Salmon Asphalt & Paving Inc

SOURCE						
Cash <input type="checkbox"/> Check <input checked="" type="checkbox"/> Money Order <input type="checkbox"/> No. 1352						
DESCRIPTION					AMOUNT OF PAYMENT	
PTC Application					1,000.00	
for unpermitted source						
RECEIVED BY <i>gr</i>					TOTAL RECEIVED	
					1,000.00	
PID	OBS	CA	SUB-OBJ	WP	BE	

No 82875

SALMON ASPHALT AND PAVING

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
2.0 DESCRIPTION OF PROCESS FLOW	1
3.0 EMISSIONS ESTIMATES.....	2
4.0 AMBIENT IMPACT ASSESSMENT.....	4
5.0 FACILITY CLASSIFICATION.....	6
6.0 APPLICABLE REQUIREMENTS.....	7

FIGURES

Figure 1	Site Location Map
Figure 2	Plot Plan of Facility
Figure 3	Process Flow Diagram

APPENDICES

Appendix 1	IDEQ Permit to Construct Application Forms
Appendix 2	Emission Estimates
Appendix 3	Ambient Impact Analysis Input/Output

1.0 INTRODUCTION

On behalf of Salmon Asphalt and Paving (SAP), Millennium Science and Engineering, Inc. (MSE) submits this application for a Permit-to-Construct (PTC) for a hot mix asphalt (HMA) plant. This permit application was prepared in accordance with Idaho Administrative Procedures Act (IDAPA) 58.01.01.200 and 58.01.01.203.

The HMA plant is currently located approximately 0.9 miles east of Highway 93 North in Salmon, Idaho (See Figure 1). The plant is owned by SAP. Although this is a portable plant, SAP has no intention of relocating the plant; therefore, the plant is considered stationary and fixed for this permit application. The HMA plant encompasses less than one acre of the approximately 80 acre site owned by SAP. A plot plan for the SAP facility is displayed in Figure 2.

The PTC application includes a description of the process flow, a process flow diagram, a facility layout, emission estimates, ambient impact assessment, and regulatory review. An application fee of \$1,000.00 is included with this permit application, as required in IDAPA 58.01.01.226. Copies of the PTC application forms are included in Appendix 1.

2.0 DESCRIPTION OF PROCESS FLOW

Note: The following discussion is heavily adapted from AP-42 Chapter 11.1, *Hot Mix Asphalt Plants*.

HMA paving materials are a mixture of well-graded, high-quality aggregate and liquid asphalt cement, which is heated and mixed in measured quantities. Aggregate constitutes over 92 percent by weight of the total mixture. Aside from the amount and grade of asphalt cement used, mix characteristics are determined by the relative amounts and types of aggregate used. A certain percentage of fine aggregate (less than 75 micrometers [μm] in physical diameter) is required for the production of good quality HMA.

Hot mix asphalt plants can be classified by their mixing operation as one of the following: (1) batch mix plants, (2) continuous mix (mix outside dryer drum) plants, (3) parallel flow drum mix plants, and (4) counterflow drum mix plants. An HMA plant can be constructed as a permanent plant, a skid-mounted (easily relocated) plant, or a portable plant. The SAP plant is a portable, parallel flow mix HMA plant.

In a parallel flow drum mixer, the aggregate is introduced to the drum at the burner end. As the drum rotates, the aggregate, as well as the combustion products from the burner, move toward the other end of the drum in parallel. Liquid asphalt cement is introduced in the mixing zone midway down the drum in a lower temperature zone, along with any PM from collectors. A variable flow pump electronically linked to the aggregate weigh scales controls the liquid asphalt cement flow. The resulting HMA then exits the coater and is conveyed to a storage silo where it is loaded into trucks for transport.

In a parallel flow mixer, the exhaust gases also exit the end of the drum and pass on to the collection system. Parallel flow drum mixers have an advantage, in that mixing in the discharge end of the drum captures a substantial portion of the aggregate dust, therefore lowering the load on the downstream PM collection equipment. The parallel flow drum mixer is followed by a baghouse, which is the primary collection equipment. Figure 3 presents a process flow diagram of the SAP HMA plant.

The SAP HMA plant will have a maximum (uncontrolled) HMA production rate of 125 tons per hour and a maximum (controlled) annual HMA production rate of 5,000 tons per year. Aedco manufactured the plant in 1985. The plant consists of the following components:

- One diesel-fueled burner (maximum rated heat input requirement of 49.3 million BTU per hour)
- One drum dryer
- One 12,000 gallon asphalt cement aboveground storage tank with electric heater
- One 5,000 gallon diesel tank
- Two bin-feeders, with a total of four bins
- One 50 ton storage silo with slug feeder
- One 26,000 ACFM baghouse
- Conveyors and screens
- One control room/trailer

A diesel electric generator was supplied with the HMA plant but will not be used at the site because on-site electrical service will supply power to the plant.

3.0 EMISSIONS ESTIMATES

Emissions from the HMA include one point source (HMA dryer baghouse) and several fugitive emission sources (loadout and silo filling, storage tank working and breathing losses, unpaved road traffic, and raw material handling and storage). Emissions from these sources consist of water (as steam evaporated from the aggregate); particulate matter (PM); products of combustion (carbon dioxide [CO₂], NO_x, and sulfur oxides [SO_x]); CO; and small amounts of organic compounds of various species (including VOC, methane [CH₄], and HAPs). The CO and organic compound emissions result from incomplete combustion of the fuel and also are released from the heated asphalt.

3.1 Emissions Calculations

The HMA emission estimates presented in this application were calculated using Idaho Department of Environmental Quality's (IDEQ's) *Hot Mix Asphalt PTC Toolkit* (2008). MSE understands that this tool is in draft form and therefore we also performed our own duplicate calculations for many of the emission sources and pollutants. The draft toolkit uses emission factors developed in the United States Environmental protection Agency (EPA) *Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1: Stationary Point and Area Sources, Chapter 11 – Mineral Products Industry, 11.1 Hot Mix Asphalt Plants*. A copy of these spreadsheets is included as Appendix 2.

The following operational parameters were used to calculate the emissions estimates for the portable HMA plant:

- The maximum capacity of the HMA plant is 125 tons per hour of HMA product; the maximum annual production will be limited to 5,000 tons per year.
- The facility hours of operation will vary depending on product demand. Typical facility operating hours are Monday through Saturday from 7:00 AM to 5:30 PM.

Fugitive sources at the plant include the following:

- the 5,000 gallon diesel aboveground storage tank (AST),
- the 12,000 asphalt cement AST,
- the unpaved facility road,
- the aggregate scalping screen,
- conveyor transfer points, and
- the drag slat conveyor.

Emissions estimates for the two ASTs were calculated using EPA's *TANKS* emissions estimation software. The *TANKS* software is based on the emission estimation procedures from Chapter 7 of EPA's *Compilation Of Air Pollutant Emission Factors* (AP-42). Detailed *TANKS* reports for both aboveground tanks are included in Appendix 2. Total particulate matter (PM) and PM10 emissions estimates from the unpaved facility road were calculated using equations 1a and 2 of AP-42 Ch. 13.2.2. Emissions estimates for the aggregate scalping screen, conveyor transfer points, and the drag slat conveyor were calculated using IDEQ's *Hot Mix Asphalt PTC Toolkit*. All emission estimates are documented in Appendix 2.

Emissions estimates for the entire facility (including point and fugitive sources) are summarized in Table 3.1 (assuming a maximum of 5000 lb/yr of asphalt is produced per year).

Table 3.1
Emissions Inventory

Pollutant	Point Source		Fugitive Emissions								Total	
	Dryer Baghouse		Unpaved Road		Loadout+Silo Filling		Scalping Screen		Storage Tanks			
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
PM	4.13	0.08	8.47	0.17	1.38E-01	0.00	1.43E-02	0.06			12.75	0.32
PM10	2.88	0.06	2.16	0.04	1.38E-01	0.00	4.97E-03	0.02			5.18	0.13
CO	16.25	0.33			3.16E-01	0.01					16.57	0.33
NOx	6.88	0.14			0.00E+00	0.00					6.88	0.14
SOx	1.38	0.03			0.00E+00	0.00					1.38	0.03
VOC	4.00	0.08			5.04E-01	0.01			0.02	0.00	4.53	0.09
Lead	1.88E-03	0.00			0.00E+00	0.00					0.00	0.00
Formald- ehyde	1.77E-03	0.00			5.01E-05	0.00					0.00	0.00
Nickel	3.60E-05	0.00			0.00E+00	0.00					0.00	0.00
PAHs	5.05E-04	0.00			2.81E-05	0.00					0.00	0.00

4.0 AMBIENT IMPACT ASSESSMENT

Air dispersion modeling was performed by MSE to demonstrate compliance with National Ambient Air Quality Standards (NAAQS) for criteria pollutants and Idaho Department of Environmental Quality (IDEQ) screening levels for TAPs in support of a PTC Application for the SAP HMA plant.

4.1 Model Description / Justification

Air dispersion modeling was performed using the EPA SCREEN3 screening model (version 96043). This screening model was selected since there is only one point source to be modeled at the site.

4.2 Model Inputs

The HMA dryer baghouse is the only point source that exists at the site. Sources that contribute emissions from the dryer baghouse include combustion of No. 1 fuel oil in the dryer and particulate emissions from material processing in the dryer. Emissions from the dryer baghouse were modeled assuming an unit emission factor of 1 gram per second (g/s) to simplify modeling. Table 4.1 summarizes the emission source characteristics used in the ambient impact analysis.

Table 4.1
SCREEN3 Model Input Values

Parameter	Value
Source Type	Point
Emission Rate (G/S)	1
Stack Height (M)	5.4864
Stack Inside Diameter (M)	0.69
Stack Exit Velocity (M/S)	32.8155
Stack Exit Temperature (K)	422.0389
Ambient Air Temperature (K)	293
Receptor Height (M)	0
Building Height (M)	9.15
Minimum Horizontal Building Dimension (M)	2.4384
Maximum Horizontal Building Dimension (M)	23.4696

Since this is a minor source, fugitive emissions were not modeled for the facility (per IDEQ modeling guidance). Six pollutants were considered for modeling from the HMA dryer baghouse: PM₁₀, CO, SO_x, formaldehyde, nickel, and PAHs. Maximum rated emission rates were used for all pollutant averaging times less than the annual averaging period. Annual emission rates were calculated based on the assumption that no more than 5,000 tons per year of HMA will be produced at the facility. Table 4.2 summarizes the emission rates used in the ambient impact analysis.

Table 4.2
Emission Estimates for Dryer Baghouse

Pollutant	Averaging Time	Emission Rate (lb/hr)
PM10	24-hour	2.88
	Annual	0.01
SO _x	3-hour	1.38
	24-hour	1.38
	Annual	0.01
CO	1-hour	16.25
	8-hour	16.25
Formaldehyde	Annual	1.77E-3
Nickel	Annual	3.60E-5
PAHs	Annual	5.05E-4

4.3 Receptors

Automated distances were utilized to determine the peak ambient impact. In addition, a discrete distance of 345 feet was utilized to determine the maximum concentration that could occur at the facility's property line.

The ambient air boundary was established as the facility's property line. No residential receptors are adjacent to the property line. The land use in vicinity of the site is a mixture of agricultural and mineral processing (gravel pits). A gate is present at the access road to prevent unauthorized individuals from accessing the property.

4.4 Elevation Data

The plant is located within an area that has small rolling hills. The plant location is elevated above the nearest potential receptors to the west and south of the plant. The land rises away from the plant to the north and east of the site. For modeling purposes we assumed that the terrain was flat. This appears to be a conservative assumption since the source area is elevated above the nearest potential receptor locations.

4.5 Meteorological Data

Full meteorology built into the SCREEN3 model was utilized for modeling purposes. The ambient air temperature was assumed to equal 293 Kelvin (default).

4.6 Land Use Classification

The land use around the proposed source is agricultural and mineral processing. The Air dispersion modeling was performed using a "rural" classification.

4.7 Background Concentrations

Table 3 summarizes the criteria pollutant background concentrations. Criteria pollutant background concentrations for small town/suburban areas were provided by Kevin Schilling of the IDEQ (for a previous project).

4.8 Evaluation of Compliance With Standards

To determine compliance with NAAQS, the applicable background concentrations were added to maximum predicted ambient concentrations determined from air dispersion modeling to result in total ambient concentrations. These total ambient air concentrations were compared to the NAAQS. Table 4.3 summarizes the air dispersion modeling results and compares the total predicted ambient air concentration to the applicable NAAQS. Based on this evaluation, no NAAQS are predicted to be exceeded by emissions from the source, if operated and configured as proposed in this application. See Appendix 3 for modeling output.

Table 4.3
Results of Ambient Impact Assessment for Criteria Pollutants
(All Concentrations in Units of $\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Period	Maximum Air Dispersion Model Output	Compliance Demonstration			
			Background	Total	NAAQS	% NAAQS
PM10	24 hr	42.06	73	115	150	76.7%
	Annual	0.04	26	26	50	52.1%
SO _x	3 hr	45.27	34	79	1300	6.1%
	24 hr	20.12	26	46	365	12.6%
	Annual	0.02	8	8	80	10.0%
CO	1hr	594.39	3,600	3,603	40,000	10.5%
	8hr	416.07	2,300	2,300	10,000	27.2%

4.9 Evaluation of Ambient Impact Assessment for TAPs

Table 4.4 summarizes the results of air dispersion modeling performed to evaluate the ambient impact for TAPs. None of the AACC were exceeded by any of the maximum predicted ambient air concentrations; therefore, the predicted ambient impact from TAP emissions is acceptable.

Table 4.4
Results of Ambient Impact Assessment for Toxic Air Pollutants
(All Concentrations in Units of $\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Period	Maximum Air Dispersion Model Output	Idaho AACC	% of AACC
Formaldehyde	Annual	8.09E-3	7.7E-2	10.5%
Nickel	Annual	1.64E-4	4.2E-3	3.9%
PAHs	Annual	2.31E-3	1.4E-2	16.5%

5.0 FACILITY CLASSIFICATION

The SAP facility is classified as a minor source as the potential to emit for the emission sources covered under this PTC application are less than 100 tons per year for any of the regulated air pollutants. The facility is classified as an area (minor) source for Hazardous Air Pollutants (HAPs) as the emissions of any single or combined HAPs are less than the

10/25 single combined tons per year thresholds. The SAP facility is not a Prevention of Significant Deterioration (PSD) listed category or considered a major source (250 tons per year or greater for any listed pollutant).

The facility is subject to a New Source Performance Standards (NSPS) for Hot Mix Asphalt Plants.

6.0 APPLICABLE REQUIREMENTS

6.1 Federal Requirements

A regulatory analysis was performed for the SAP facility to determine the applicability of the federal regulations in 40 CFR.

40 CFR Part 60 Subpart I – Standards of Performance for New Stationary Sources Hot Mix Asphalt Facilities. The facility is subject to the requirements of 40 CFR Part 60 Subpart I – Standards of Performance for New Stationary Sources Hot Mix Asphalt Facilities because this facility meets the applicability definitions in 40 CFR 60.90(a) and (b) and was constructed after June 11, 1973:

Under this subpart, the facility is restricted to discharge or cause the discharge in the atmosphere gases which:

- 60.92(a)(1) Contain particulate matter in excess of 90 mg/dscm (0.4 gr/dscf)
- 60.02(a)(2) Exhibit 20 percent opacity, or greater

The facility is required to be performance tested for particulate matter (Method 5) and opacity (Method 9) within 60 days of achieving maximum production and within 180 days of beginning operation.

40 CFR Part 60 Subpart OOO – Standards of Performance for New Stationary Sources for Nonmetallic Mineral Processing Plants. The facility is not subject to the requirements of 40 CFR Part 60 Subpart OOO because the SAP facility does not crush minerals onsite.

40 CFR Part 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. The storage tanks at the facility are not subject to the requirements of 40 CFR Part 60 Subpart Kb as the two aboveground storage tanks have capacities less than 75 m³..

40 CFR Part 63 National Emissions Standards for Hazardous Air Pollutants are included in the State applicable regulatory review. The SAP facility is an area (minor) source for hazardous air pollutants.

6.2 State of Idaho Requirements

The following requirements apply under the IDAPA 58.01.01, *Rules for the Control of Air Pollution in Idaho*. Unless otherwise noted, “HMA plant,” means any provision applicable to the dryer, baghouse and stack, truck loading silo, bins, conveyors, screens, and storage tanks.

IDAPA 58.01.01.130: STARTUP, SHUTDOWN, SCHEDULED MAINTENANCE, SAFETY MEASURES, UPSET AND BREAKDOWN

1. HMA plant

If an excess emission event occurs during startup, shutdown, scheduled maintenance, safety measures, upset, or breakdown, SAP will comply with IDAPA 58.01.01.130 through IDAPA 58.01.01.136 by planning, identifying, operating, correcting, and notifying IDEQ of the event and as otherwise required by this section.

IDAPA 58.01.01.161: TOXIC SUBSTANCES

1. HMA plant

Toxic emissions have been reviewed for this project and are in compliance with this requirement. See emissions estimates in Appendix 2 and modeling results in Appendix 3.

IDAPA 58.01.01.200: PROCEDURES AND REQUIREMENTS FOR PERMITS TO CONSTRUCT

1. HMA plant

SAP will follow the procedures and requirements outlined under IDAPA 58.01.01.200 for obtaining a Permit to Construct.

IDAPA 58.01.01.500: REGISTRATION PROCEDURES AND REQUIREMENTS FOR PORTABLE EQUIPMENT

1. HMA plant

Although the HMA plant is portable, the operator has no intention to move the facility to a different location; therefore, the plant is considered permanent and stationary for purposes of this permit application.

IDAPA 58.01.01.578: DESIGNATION OF ATTAINMENT, UNCLASSIFIABLE, AND NONATTAINMENT AREAS

1. HMA plant

The facility is located in an attainment area.

IDAPA 58.01.01.590: NEW SOURCE PERFORMANCE STANDARDS

1. HMA plant

The facility is subject to the requirements of NSPS 40 CFR Part 60 Subpart I – Standards of Performance for New Stationary Sources Hot Mix Asphalt Facilities. See discussion under Federal Requirements (6.1)

IDAPA 58.01.01.591 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The facility is not regulated under 40 CFR Part 61 and 40 CFR Part 63 as it is an area source and not subject to NESHAP provisions.

IDAPA 58.01.01.625 VISIBLE EMISSIONS

1. HMA plant

SAP shall demonstrate compliance with this standard by operating the equipment as described in this application, and maintaining the emissions control equipment according to manufacturers' recommendations or site-specific good operating practices procedure.

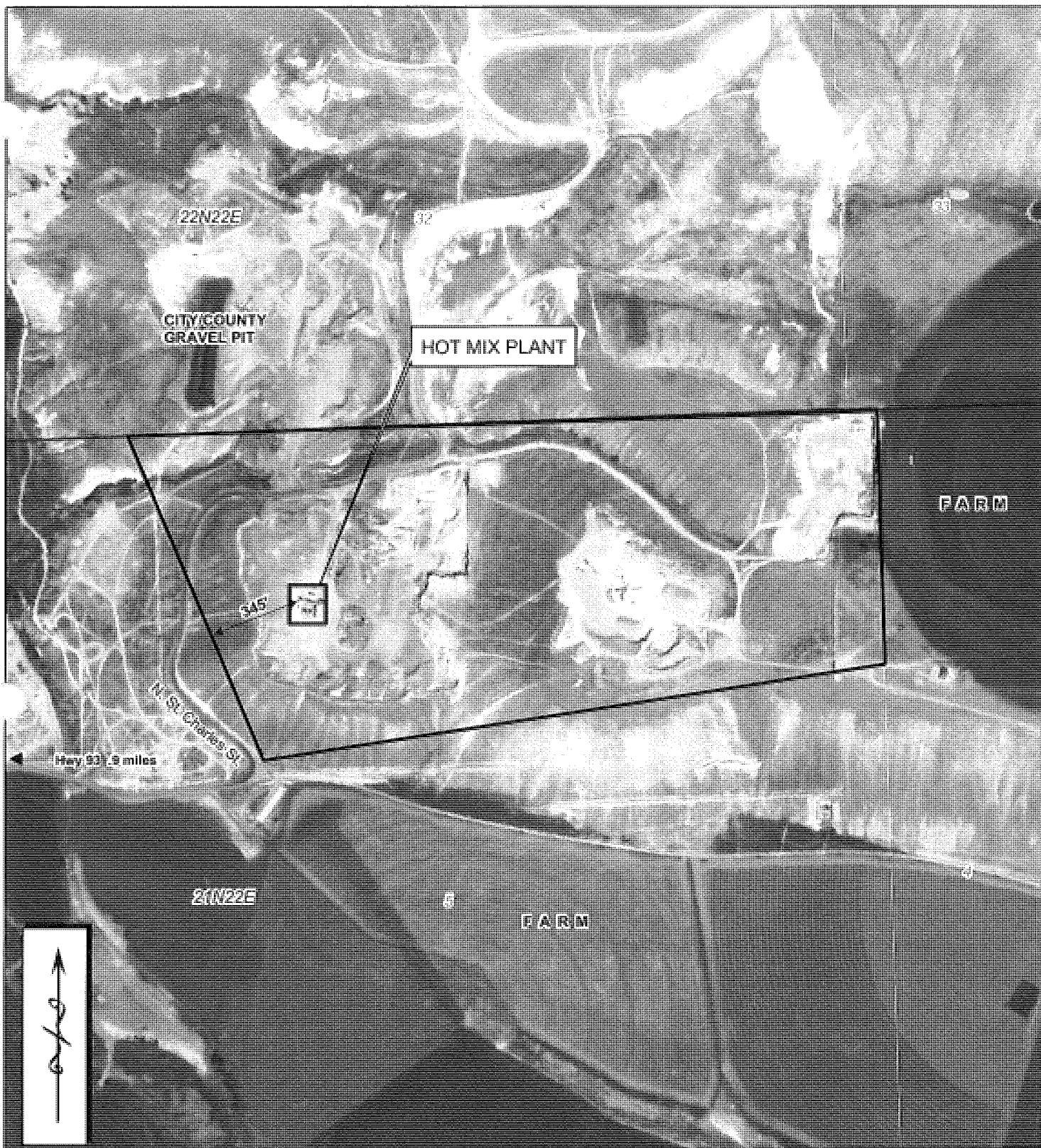
IDAPA 58.01.01.701 PARTICULATE MATTER – NEW EQUIPMENT PROCESS WEIGHT LIMITATIONS

The HMA plant rated process weight is 250,000 lb/hr (125 ton/hr x 2000 lb/ton). The allowable emissions from the entire source for this process weight is 24.60 lb/hr. Process weight 400,000 lb/hr or less has an emission standard of 27.66 lb/hr for the entire source. See emission estimates in Appendix 2 and modeling results in Appendix 4.

IDAPA 58.01.01.775 RULES FOR CONTROL OF ODORS

SAP will follow the guidelines set under IDAPA 58.01.01.775 through IDAPA 58.01.01.776 to control odorous emissions from all sources for which no gaseous emission control rules apply.

FIGURES



REFERENCE: LEMHI COUNTY MAP IMAGERY, 2004

MSE Millennium Science & Engineering, Inc.

SITE LOCATION MAP

1605 North 13th Street
Boise, ID 83702 USA
Phone: (208) 345-8292

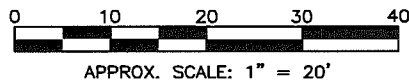
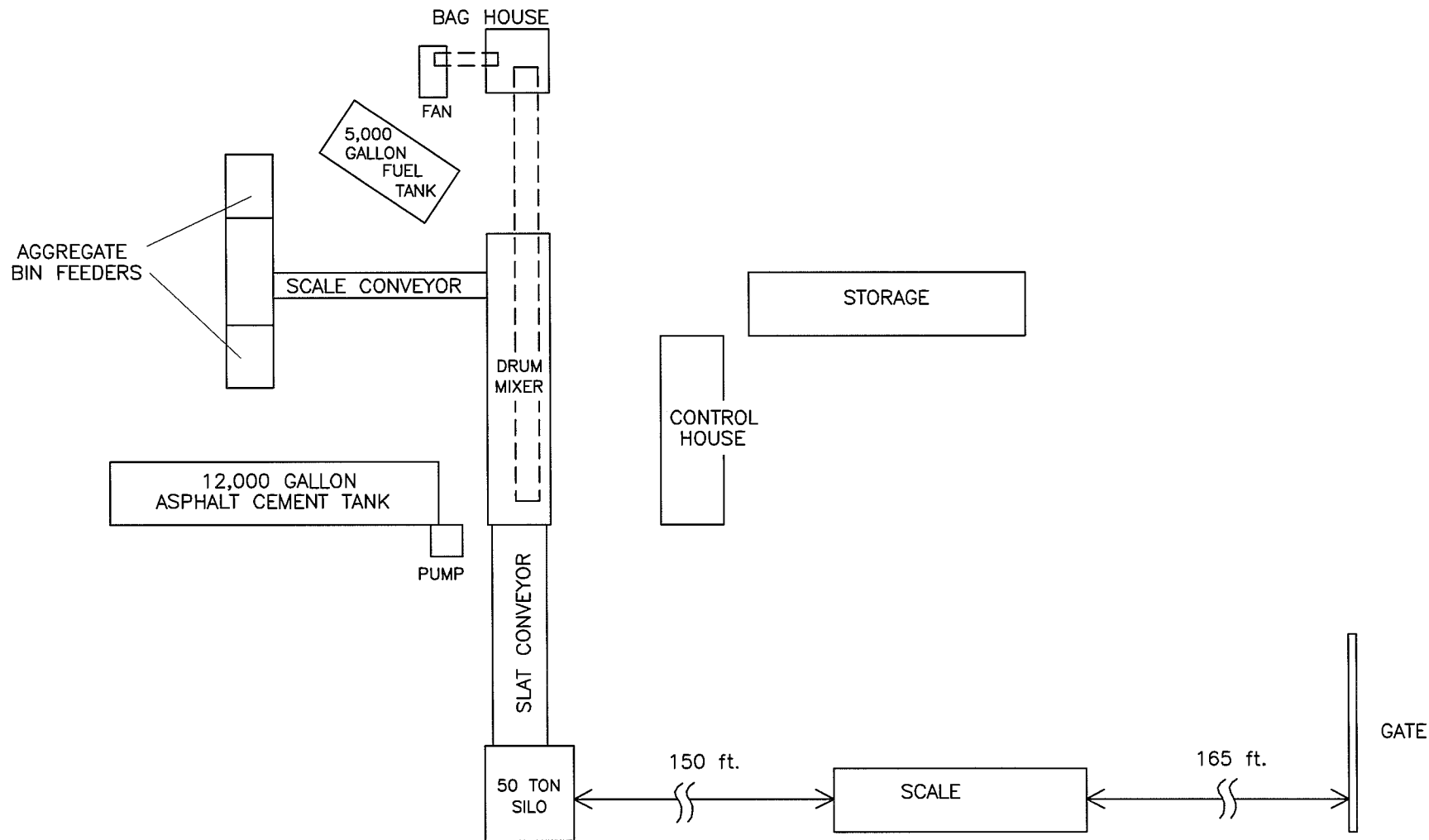
**SALMON ASPHALT AND PAVING
HOT MIX PLANT
SALMON, IDAHO**

B2958

07-17-08

MSE

FIGURE 1



MSE Millennium Science & Engineering, Inc.

1605 North 13th Street
Boise, Idaho 83702 USA
Phone: (208) 345-8292

PLOT PLAN OF FACILITY

SALMON ASPHALT
HOT MIX PLANT
SALMON, IDAHO

B2958

7-21-08

MSE

FIGURE 2

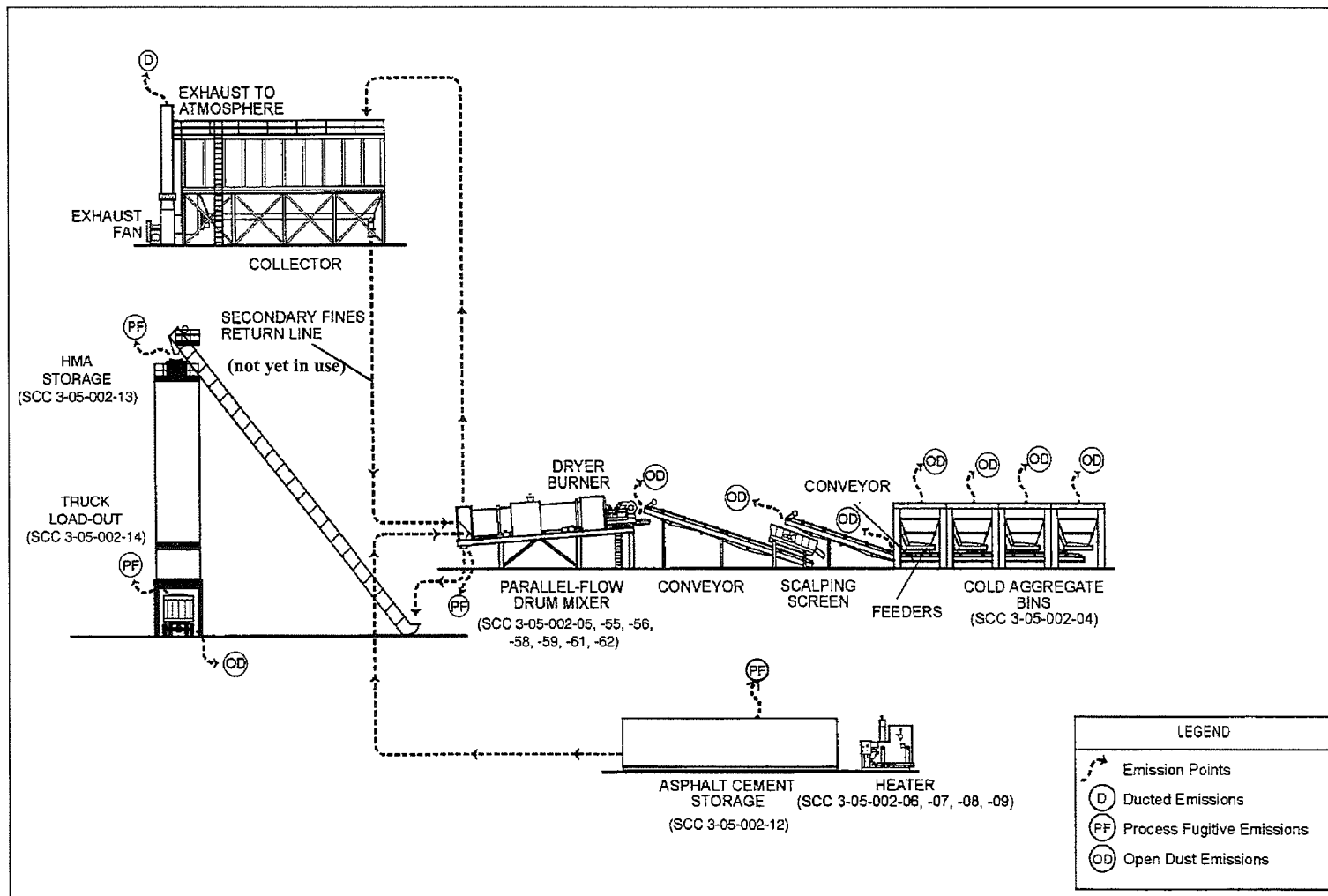


Figure 3
Process Flow Diagram
Salmon Asphalt and Paving
Salmon, Idaho

(Adapted from Figure 11.1-2, AP-42, Chapter 11.1, Hot Mix Asphalt Plants.)

Appendix 1

IDEQ Permit to Construct Application Forms



DEQ AIR QUALITY PROGRAM
 1410 N. Hilton, Boise, ID 83706
 For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
 04/03/07

Please see instructions on page 2 before filling out the form.

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER			
1. Company Name	Salmon Asphalt and Paving		
2. Facility Name	Salmon Asphalt and Paving	3. Facility ID No.	
4. Brief Project Description - One sentence or less	PTC for Parallel Flow Hot Mix Asphalt Plant		
PERMIT APPLICATION TYPE			
5. <input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input checked="" type="checkbox"/> Unpermitted Existing Source <input type="checkbox"/> Modify Existing Source: Permit No.: _____ Date Issued: _____ <input type="checkbox"/> Required by Enforcement Action: Case No.: _____			
6. <input checked="" type="checkbox"/> Minor PTC <input type="checkbox"/> Major PTC			
FORMS INCLUDED			
Included	N/A	Forms	DEQ Verify
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form GI – Facility Information	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU0 – Emissions Units General	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU5 – Boiler Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form BCE - Baghouses Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form SCE - Scrubbers Control Equipment	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms EI-CP1 - EI-CP4 - Emissions Inventory- criteria pollutants (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PP – Plot Plan	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form FRA – Federal Regulation Applicability	<input type="checkbox"/>

DEQ USE ONLY	
Date Received	
RECEIVED	
JUL 25 2008	
Department of Environmental Quality State Air Program	
Project Number	
Payment / Fees Included? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Check Number	



DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

Please see instructions on page 2 before filling out the form.

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION

1. Company Name	Salmon Asphalt and Paving
2. Facility Name (if different than #1)	
3. Facility I.D. No.	
4. Brief Project Description:	PTC for Parallel Flow Hot Mix Asphalt Plant

FACILITY INFORMATION

5. Owned/operated by: (√ if applicable)	<input type="checkbox"/> Federal government <input type="checkbox"/> County government <input type="checkbox"/> State government <input type="checkbox"/> City government
6. Primary Facility Permit Contact Person/Title	Chuck Mualem
7. Telephone Number and Email Address	208-756-7939
8. Alternate Facility Contact Person/Title	
9. Telephone Number and Email Address	
10. Address to which permit should be sent	76 Aldous Drive
11. City/State/Zip	Salmon, ID 83467
12. Equipment Location Address (if different than #10)	N1/2, NE1/4, S5, T21N, R22E (north of North Saint Charles Street)
13. City/State/Zip	Salmon, ID 83467
14. Is the Equipment Portable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
15. SIC Code(s) and NAISC Code	Primary SIC: 2951 Secondary SIC (if any): NAICS: 324121
16. Brief Business Description and Principal Product	Manufacture hot mix asphalt
17. Identify any adjacent or contiguous facility that this company owns and/or operates	

PERMIT APPLICATION TYPE

18. Specify Reason for Application	<input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input checked="" type="checkbox"/> Unpermitted Existing Source <input type="checkbox"/> Modify Existing Source: Permit No.: _____ Date Issued: _____ <input type="checkbox"/> Permit Revision <input type="checkbox"/> Required by Enforcement Action: Case No.: _____
------------------------------------	---

CERTIFICATION

IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.

19. Responsible Official's Name/Title	Charles Mualem	
20. RESPONSIBLE OFFICIAL SIGNATURE		Date: July 21, 2008
21. <input type="checkbox"/> Check here to indicate you would like to review a draft permit prior to final issuance.		



DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Hot Mix Asphalt Plant Form HMAP

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/02/07

Please see instructions on page 4 before filling out the form.

GENERAL INFORMATION

Company Name:	Salmon Asphalt and Paving		
Facility Name:	Salmon Asphalt and Paving	Facility ID No:	
Brief Project Description:	PTC for Parallel Flow Hot Mix Asphalt Plant		
Mailing Address:	76 Aldous Drive		
City:	Salmon	State:	ID
Zip Code:	83467	County:	Lemhi
General Nature of Business & Products:	Manufacture hot mix asphalt		

Contact Name, Title:	Mr. Chuck Mualem		
Phone:	208-756-7939	Cell:	208-756-7939
Email:			

Owner or Responsible Official Name, Title:	Mr. Chuck Mualem		
Phone:	208-756-7939		
Email:			

Proposed Initial Plant Location:	N1/2, NE1/4, S5, T21N, R22E (north of North Saint Charles Street)		
Nearest City:	Salmon, Idaho	Estimated Startup Date:	ASAP
County:	Lemhi		

Reason for Application:	<input type="checkbox"/> Permit to construct a new source <input checked="" type="checkbox"/> Permit to operate an existing unpermitted source <input type="checkbox"/> Permit to modify/revise an existing permitted source (identify the permit below) Permit No.: _____ Issue Date: _____ Facility ID: _____
-------------------------	--

☒ Check here to indicate you would like to review a draft permit prior to final issuance.

Comments:

HOT-MIX ASPHALT PLANT INFORMATION

Manufacturer:	AEDCO		Model:	SN#AD526
Manufacture Date:	1985		Type HMA Plant:	<input checked="" type="checkbox"/> Drum Mix <input type="checkbox"/> Batch Mix
Maximum Hourly Asphalt Production:	125 (tons/hour)			
Requested Annual Asphalt Production:	5000 (tons/year)			
Burner Fuel Type:	Diesel (natural gas, #2 fuel oil, used oil, etc.)			
Maximum Burner Fuel Usage Rate:	360 <input type="checkbox"/> scf/hour or <input checked="" type="checkbox"/> gallons/hour			
Type Air Pollution Control Device:	Baghouse (baghouse, scrubber, etc.)			
Control Device Manufacturer:	Cedar Rapids	Model:	3592S	
Stack Parameters:	Stack Height from Ground (ft): 18		Stack Exhaust Flow Rate (acfm): 26,000	
	Stack Inside Diameter (ft): 2.26		Stack Exhaust Gas Temperature (°F): 300	

ASPHALT TANK HEATER

Fuel Type:	Electric (natural gas, #2 fuel oil, used oil, etc.)			
Maximum Fuel Usage Rate:	NA (units/hour) (units/year) <input type="checkbox"/> gallons <input type="checkbox"/> ft ³ <input type="checkbox"/> other:			
Type Air Pollution Control Device:	NA <input type="checkbox"/> MMBtu <input type="checkbox"/> HP			
Stack Parameters:	Stack Height from Ground (ft): _____		Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____		Stack Exhaust Gas Temperature (°F): _____	

Is this an NSPS-affected facility?

☒ Yes ☐ No

To determine if the HMA facility is a New Source Performance Standards (NSPS)-affected facility, consider the following:

Were any of the following constructed or modified after June 11, 1973, such that the equipment becomes an affected facility as defined in 40 Code of Federal Regulations, Part 60, Section 90 (40 CFR 60.90) *Standards of Performance for Hot-Mix Asphalt Facilities*:

- Dryers
- Systems for screening, handling, storing, and weighing of hot aggregate
- Systems for loading, transferring, and storing of mineral filler
- Systems for mixing hot-mix asphalt
- Leading, transfer, and storage systems associated with emission control systems

Modification is defined in 40 CFR 60.14. The Code of Federal Regulations can be accessed from the website <http://www.gpoaccess.gov/cfr/>.

Has a performance test been conducted in accordance with 40 CFR 60.93 that demonstrates particulate matter emissions are less than or equal to 0.04 gr/dscf (grains per dry standard cubic foot) at the HMA stack?

☐ Yes ☒ No

If Yes, state the date the test was conducted: _____

Provide a copy of the performance test results with this application if you want DEQ to consider it in determining the frequency of performance testing requirements for your hot-mix asphalt plant.

ELECTRICAL GENERATOR SET INFORMATION (If Applicable)

Manufacturer:	<input type="checkbox"/> Not Used/Electric Service Onsite	Model:	
Maximum Rated Capacity:	<input type="checkbox"/> Hp	<input type="checkbox"/> kW	
Fuel Type:	<input type="checkbox"/> Gasoline	<input type="checkbox"/> Diesel	<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane
Maximum Fuel Usage Rate:	<input type="checkbox"/> gal./hr.	<input type="checkbox"/> cfh	
Maximum Daily Hrs. of Operations:	(hours/day) _____		
Maximum Annual Hrs. of Operations:	(hours/year) _____		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

Manufacturer:		Model:	
Maximum Rated Capacity:	<input type="checkbox"/> Hp	<input type="checkbox"/> kW	
Fuel Type:	<input type="checkbox"/> Gasoline	<input type="checkbox"/> Diesel	<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane
Maximum Fuel Usage Rate:	<input type="checkbox"/> gal./hr.	<input type="checkbox"/> cfh	
Maximum Daily Hrs. of Operations:	(hours/day) _____		
Maximum Annual Hrs. of Operations:	(hours/year) _____		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

☒ \$1,000 PTC application fee enclosed

Certification of Truth, Accuracy, and Completeness (by Responsible Official)

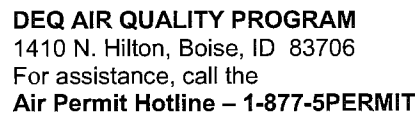
I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.


Responsible Official Signature

President
Responsible Official Title

JULY 21, 2008
Date

CHARLES MVALEM
Print or Type Responsible Official Name



PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/02/07[illegible]



DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 2
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Salmon Asphalt and Paving
---------------	---------------------------

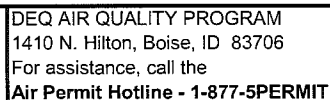
Facility Name:	Salmon Asphalt and Paving
----------------	---------------------------

Facility ID No.:

Brief Project Description:	PTC for parallel flow hot mix asphalt plant
----------------------------	---

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

1.	2.	3.											
		PM ₁₀		SO ₂		NO _x		CO		VOC		Lead	
Fugitive Source Name	Fugitive ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Fugitive Source(s)													
Loadout and Silo Filling	SILO	0.14	0.00					0.32	0.01	0.50	0.01		
5,000 gallon diesel AST	TANK-1												
12,000 gallon asphalt AST	TANK-2												
Facility Road (unpaved)	ROAD	2.16	0.04										
Aggregate Scalping Screen	AGGSCREEN	0.01	0.00										
Conveyor Transfer Points	TRANSFER												
Drag Slat Conveyor	DRAGSLAT	0.00	0.00										
Total		2.30	0.04					0.32	0.01		0.01		



PERMIT TO CONSTRUCT APPLICATION

Revision 3

4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Salmon Asphalt and Paving
---------------	---------------------------

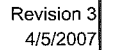
Salmon Asphalt and Paving

Facility ID No.:

Brief Project Description:	PTC for parallel flow hot mix asphalt plant
----------------------------	---

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM ₁₀		SO ₂		NO _x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
HMA Dryer Baghouse	DRYBH	2.88	0.06	1.38	0.03	6.88	0.14	16.25	0.33	4.00	0.08	0.00	0.00
Total		2.88	0.06	1.38	0.03	6.88	0.14	16.25	0.33	4.00	0.08	0.00	0.00



Page 4

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the Air Permit Hotline - 1-877-5PERMIT	PERMIT TO CONSTRUCT APPLICATION Revision 3 4/5/2007
	<i>Please see instructions on page 2 before filling out the form.</i>	

Company Name:	Salmon Asphalt and Paving							
Facility Name:	Salmon Asphalt and Paving							
Facility ID No.:								
Brief Project Description:	PTC for parallel flow hot mix asphalt plant							
SUMMARY OF AIR IMPACT ANALYSIS RESULTS - CRITERIA POLLUTANTS								
		1.		2.	3.	4.		5.
Criteria Pollutants	Averaging Period	Significant Impact Analysis Results (µg/m3)	Significant Contribution Level (µg/m3)	Full Impact Analysis Results (µg/m3)	Background Concentration (µg/m3)	Total Ambient Impact (µg/m3)	NAAQS (µg/m3)	Percent of NAAQS
PM ₁₀	24-hour	42.06	5	42.06	73.00	115.06	150	77%
	Annual	0.04	1	0.04	26.00	26.04	50	52%
SO ₂	3-hr	45.27	25	45.27	34.00	79.27	1300	6%
	24-hr	20.12	5	20.12	26.00	46.12	365	13%
	Annual	0.02	1	0.02	8.00	8.02	80	10%
NO ₂	Annual		1				100	
CO	1-hr	594.39	2000	594.39	3,600.00	4,194.39	40000	10%
	8-hr	416.07	500	416.07	2,300.00	2,716.07	10000	27%

PERMIT TO CONSTRUCT APPLICATION

Revision 3
3/27/2007

Please see instructions on page 2 before filling out the form

Salmon Asphalt and Paving

Facility ID No.:

Brief Project Description:	PTC for parallel flow hot mix asphalt plant
----------------------------	---

POINT SOURCE STACK PARAMETERS

[illegible]

PERMIT TO CONSTRUCT APPLICATION

Revision 3

4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name: Salmon Asphalt and Paving

Facility Name:	Salmon Asphalt and Paving
----------------	---------------------------

Facility ID No.:

Brief Project Description:	PTC for parallel flow hot mix asphalt plant
----------------------------	---

FUGITIVE SOURCE PARAMETERS

Page 4